

**Question 2****Total = 10 marks**

Allocate marks as follows:

Hypothesis:

- *Primary school children not reinforced during the acquisition period of learning (trials 1-5) will complete trial 6 in the same length of time as children who were reinforced*

2 marks Students operationally define the IV and DV and identify the population

1 mark Students fail to identify any one of above components

IV and DV:

- *IV: whether children are reinforced (given a treat) during the acquisition phase (trials 1 – 5);*

- *DV: time taken to complete trial 6*

2 marks Students make both of the above points

1 mark Students make one of the above points

Evaluation:

- *Study used independent groups design, avoiding order effects, but possibly introducing participant effects*

- *Groups may not be comparable, since they are not balanced for age and gender. Males perform better on task involving spatial ability*

- *Study did not use double-blind procedures, possibly introducing experimenter effects*

- *The sample may not adequately represent the population: it is composed of volunteers and does not represent children of all ages*

2 marks Students make any two of the above points

1 mark Students make one of the above points

Statement of conclusions:

- *Significance of results: $p > 0.05$, therefore the difference between the two groups' means is not significant at the 0.05 level of significance*

- *Can conclude that the group which was not reinforced until Trial 5 learned to navigate through the maze almost as well as the group that was reinforced during learning. This supports the idea that latent learning took place.*

2 marks Students make both of the above points

1 mark Students make one of the above points

Ethical issues relating to the study:

- *Ethical requirements regarding informed consent and voluntary participation were met **or***

- *We do not know if participants were given debriefing, as required*

1 mark Students make one of the above points

Wider implications/generalisations:

- *Difficult to generalise because sample is not representative of population*

1 mark Students make the above point

END OF SUGGESTED SOLUTIONS

PSYCHOLOGY

Unit 4

Trial Examination

SOLUTIONS BOOK

Use this page as an overlay for marking the multiple choice answer sheets. Simply photocopy the page onto an overhead projector sheet. The correct answers are open boxes below. Students should have shaded their answers. Therefore, any open box with shading inside it is correct and scores 1 mark.

ONE ANSWER PER LINE			ONE ANSWER PER LINE			ONE ANSWER PER LINE		
1	<input type="checkbox"/>	<input type="checkbox"/>	16	<input type="checkbox"/>	<input type="checkbox"/>	31	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	17	<input type="checkbox"/>	<input type="checkbox"/>	32	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	18	<input type="checkbox"/>	<input type="checkbox"/>	33	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	19	<input type="checkbox"/>	<input type="checkbox"/>	34	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	20	<input type="checkbox"/>	<input type="checkbox"/>	35	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	21	<input type="checkbox"/>	<input type="checkbox"/>	36	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	22	<input type="checkbox"/>	<input type="checkbox"/>	37	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	23	<input type="checkbox"/>	<input type="checkbox"/>	38	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	24	<input type="checkbox"/>	<input type="checkbox"/>	39	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	25	<input type="checkbox"/>	<input type="checkbox"/>	40	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	26	<input type="checkbox"/>	<input type="checkbox"/>	41	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>	27	<input type="checkbox"/>	<input type="checkbox"/>	42	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>	28	<input type="checkbox"/>	<input type="checkbox"/>	43	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>	<input type="checkbox"/>	29	<input type="checkbox"/>	<input type="checkbox"/>	44	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>	<input type="checkbox"/>	30	<input type="checkbox"/>	<input type="checkbox"/>	45	<input type="checkbox"/>	<input type="checkbox"/>

SECTION A – Multiple-choice questions

1	D	16	A	31	A
2	C	17	A	32	A
3	B	18	D	33	D
4	D	19	D	34	B
5	A	20	C	35	D
6	B	21	A	36	C
7	D	22	B	37	A
8	B	23	C	38	C
9	A	24	D	39	A
10	B	25	C	40	B
11	C	26	C	41	B
12	B	27	C	42	D
13	A	28	D	43	C
14	A	29	B	44	C
15	B	30	D	45	C

SECTION B – Short Answer Questions

Question 1

- a. Answer
- A fixed action pattern is an inborn tendency to exhibit a particular sequence of behaviours when an appropriate stimulus is presented; often described as a species-specific behaviour
 - Example: Mating behaviour in birds
- 2 marks Students give correct definition and appropriate example
1 mark Students give correct definition or appropriate example but not both
- b. Answer
- Maturation
- 1 mark Students make the above point

Question 2

- a. Answer
- Adaptive plasticity refers to changes that occur in the brain in response to experience or to compensate for function lost through brain damage
- 1 mark Students make the above point
- b. Answer
- Adaptive plasticity involves the growth of dendritic spines and synaptogenesis
 - New connections form between undamaged neurons, rerouting around the damaged area. The resultant formation of new neural connections may compensate for loss of function caused by the brain damage
- 2 marks Students make both of the above points
1 mark Students make one of the above points
- could include synaptic pruning

Question 3

- Answer
- Negative reinforcement, because frequency of behaviour increases
 - and consequence involves the removal of an aversive stimulus
- 2 marks Students make both of the above points
1 mark Students make one of the above points

Question 4**a. Answer**

- Variable ratio schedule **or** variable interval schedule

1 mark Students make the above point

b. Answer

- Variable-ratio **or** variable-interval reinforcement schedules

1 mark Students make the above point

Question 5**a. Answer**

- When the punisher is too mild, the effects may be only temporary
- Punishment does not provide the organism with as much information regarding desirable behaviour as does reinforcement
- Punishment may produce unwanted responses such as escape, avoidance, aggression, fear, etc.

1 mark Students make one of the above points

b. Answer

- It should be applied immediately after the occurrence of the undesired behaviour
- It should follow every instance of the targeted behaviour
- An alternative behaviour should be made available which can be reinforced.

1 mark Students make one of the above points

c. Answer

- The behaviour being targeted is strengthened/occurs more frequently

1 mark Students make the above point

Question 6**a. Answer**

- Latent learning is a form of learning that occurs without any reinforcement during the acquisition stage, and which remains unexpressed until elicited by need

1 mark Students make the above point

b. Answer

- For example, someone observing cardio-pulmonary resuscitation (CPR) procedures in a TV show is not being reinforced for learning. Further, they may not realize that they had learned how to do it (knowledge is latent) until required to help someone

1 mark Students make the above point

Question 7**a. Answer**

- Lack of informed consent/freedom to withdraw
- Did not suspend study even though harm was being done

1 mark Students make one of the above points

b. Answer

- Beneficence refers to actions that promote the wellbeing of others
- Applying this concept, Albert's suffering served a positive function because it enabled Watson to identify the mechanisms of a conditioned emotional response.

1 mark Students make the above points

Question 8**Answer**

People suffering from mental health issues may experience, to a varying degree, problems with:

- developing relationships with others
- coping with stress experienced as part of everyday life
- cognitive processes such as attention, memory and perception
- emotions, e.g. inability to feel pleasure; experiencing ongoing distress
- self-fulfilment

2 marks Students make any two of the above points

1 mark Students make any one of the above points

Question 9**a. Answer**

- Categorical approaches to classifying mental health problems involve grouping all the conditions into distinct categories (types) according to their common features (an example is the DSM IV)

1 mark Students make the above point

b. Answer

- There are clear boundaries around each disorder, making it easier to diagnose
- It provides a shared, clear understanding which facilitates discussion among mental health professionals

1 mark Students make the above points

Question 10**Answer**

Exercise benefits psychological health by reducing the effects of stress. In particular, exercise

- uses up stress hormones secreted when we experience arousal
- reduces tension that has built up in muscles as a result of stress
- makes one better able to deal with potential stressors by increasing flexibility, fitness, strength and the efficiency of the cardio-vascular system
- produces endorphins that increase one's sense of well-being
- may provide beneficial social interactions
- increases the rate of circulation of glucose and oxygen through brain, making neural activity more efficient

2 marks Students make any two of the above points

1 mark Students make any one of the above points

Question 11**a. Answer**

- Physiological responses may include: increased heart rate/breathing rate; raised blood pressure
- Psychological responses may include: attentional/memory problems; obsessive thinking; sleep disturbances

2 marks Students provide two appropriate examples

1 mark Students provide one appropriate example

b. Answer

- Graduated exposure (also called systematic desensitisation) is a technique in which the phobia sufferer, while relaxed, is exposed (often just through visualisation) to progressively more frightening versions of the phobia stimulus. The procedure uses classical conditioning to change the response to the phobia stimulus from fear to indifference.
- Fran would be put in a relaxed state, then she would be asked to imagine stressful situations starting with least extreme and building up to the actual job interview.

2 marks Students make both of the above points

1 mark Students make one of the above points

Question 12**a. Answer**

- According to Lazarus and Folkman's model of stress, a person's experience of a stressor is dependent on their appraisal of the situation and their capacity to deal with it.
- Because they bring unique elements to the process, Nadia's and Shanti's appraisal may result in very different outcomes

2 marks Students make two of the above points

1 mark Students make one of the above points

b. Answer

- *Nadia may:*
 - *experience denial: "There is no problem"*
 - *engage in wishful thinking: "I wish we could find a place to stay"*
 - *catastrophise: "This is just terrible; it will ruin my life"*
 - *seek support from others: "I need your sympathy"*
- *Shanti may:*
 - *seek assistance from others, e.g. the University*
 - *learn new skills that may help her manage the situation, e.g. learning to drive so that she can commute to University*
 - *generate alternative solutions, e.g. deciding to rent a room in an existing share house, or offering to work (for example, as a nanny or carer) in exchange for accommodation*

2 marks Students provide two appropriate examples

1 mark Students provide one appropriate example

Question 13**a. Answer**

Responses will depend on disorder chosen

1 mark Students provide two symptoms typical of chosen disorder

b. Answer

- **Biological** factors include: genetic inheritance; aspects of nervous system structure and function (e.g. type and quantity of neurotransmitter produced), use of psychoactive drugs, etc.
- **Psychological** factors include: parental care and early childhood experiences; conditioning; social learning, perceived ability to cope, etc.
- **Socio-cultural** factors include: economic status; cultural perspectives on condition; social isolation; social stressors

3 marks Students provide one appropriate example in each category

2 marks Students provide one appropriate example in two categories

1 mark Students provide one appropriate example in one category

SECTION C – Extended response question**Question 1**

Total = 10 marks

Allocate marks as follows:

Description of specific phobia:

- *Involve excessive/unreasonable fear of a particular object/situation/event*
- *Interfere with everyday functions*
- *Cause distress*

2 marks Students identify at least two relevant features of phobia

1 mark Students provide a correct but incomplete description

Identification of elements that label it an anxiety disorder:

- *Involves physiological arousal (increase in blood pressure/heart rate/breathing rate)*
- *Associated with feelings of apprehension, dread, cognitive changes (inability to concentrate, perform tasks, etc.)*

2 marks Students provide least two relevant features of disorder

1 mark Students provide a correct but incomplete description

Explanation according to the cognitive model

- *The cognitive model explains development of phobias in terms of how the individual processes information about the phobia object. In particular, it considers biases with respect to*
 - *Attentional biases: tendency to selectively attend to threat-related stimuli*
 - *Memory biases: tendency to better remember threatening information*
 - *Interpretation of information: tendency to construct information so that it carries threat*
 - *Thought processes, e.g. catastrophic thinking*

3 marks Students provide a brief outline of three relevant points, or an in-depth discussion of two or more points

2 marks Students provide a brief outline of two relevant points, or an in-depth discussion of one

1 mark Students provide a brief outline of one point

Explanation according to behavioural models

- *Behavioural explanations focus on ways in which phobias may be learned, in particular, through*
 - *Classical conditioning*
 - *Operant conditioning and*
 - *Social learning/modelling*

3 marks Students provide a brief outline of three relevant points, or an in-depth discussion of two or more points

2 marks Students provide a brief outline of two relevant points, or an in-depth discussion of one

1 mark Students provide a brief outline of one point